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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,583	02/10/2004	Toshihiko Takeda	00862.021664.1	9531

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EXAMINER	
LIN, JAMES	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/774,583	TAKEDA ET AL.	
	Examiner	Art Unit	
	Jimmy Lin	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-45* is/are pending in the application.

4a) Of the above claim(s) *1-11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 02/19/2004
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 12-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 and 30 of U.S. Patent No. 6,848,961. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process of '961, claim 1, part a, dominates current claim 12. Claims 2-10 and 30 teach features of the current dependent claims

Claims 22-43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 and 30 of U.S. Patent No. 6,848,961 in view of Ikeda '061. '961 is described above, but does not explicitly describe 1) that each device is between a pair of electrodes and connected by X- and Y-wiring lines, 2) introducing a carbon-containing gas, or 3) two setting and applying steps. However, '061 teaches 1) that each device is between a pair of electrodes and connected by X- and Y-wiring lines (col. 16, lines 50-67), 2) introducing a carbon-containing gas (col. 33, lines 48-60), and 3) two setting and applying steps (col. 33, line 41-col. 34, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated those features into the claims of '961 with a reasonable expectation of success to have achieved the conventional layouts and purposes described by '061.

Claims 44 and 45 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,848,961 in view of Ikeda '061. '961 is described above, but does not explicitly describe 1) that X- and Y-wiring lines connect a plurality of conductive films, 2) two setting and applying steps, or 3) applying a voltage to the wiring lines in an atmosphere containing hydrogen gas and a carbon compound gas. However, '061 teaches 1) that each device is between a pair of electrodes and connected by X- and Y-wiring lines (col. 16, lines 50-67), 2) two setting and applying steps (col. 33, line 41-col. 34, line 10), and 3) applying a voltage to the wiring lines in an atmosphere containing hydrogen gas and a carbon compound gas (col. 29, lines 22-27 and col. 33, lines 48-60). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated those features into the claims of '961 with a reasonable expectation of success to have achieved the conventional layouts and purposes described by '061.

3. Claims 12-17, 19, 22, 24-28, 30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 13-29 of U.S. Patent No. 6,846,213. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process of '213, claim 13 dominates the current claims 12 and 22. Claims 14-29 teach further features of the dependent claims.

Claims 20-21, 23, 31-39, and 41-43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-29 of U.S. Patent No. 6,846,213 in view of Ikeda '061. '213 is described above, but does not explicitly describe 1) that each device is connected by X- and Y-wiring lines, 2) introducing a carbon-containing gas, 3) two setting and applying steps or 4) heating or cooling. However, such features are known in the art or producing electron-emitting devices, as described in regard to '061 above. In addition, the temperature of the substrate may be controlled by heating. Electron-emitting devices are not used at high temperature, such as 200 °C (col. 34, lines 15-25). Accordingly, the substrates must subsequently be cooled. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated those features into the claims of '213 with a reasonable expectation of success to have achieved the conventional layouts and purposes described by '061.

Claims 18 and 29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-29 of U.S. Patent No. 6,846,213 for the reasons given above and further in view of Dvorsky '864. '213 does not explicitly teach fixing the substrate to the support nor arranging a heat conduction member between the substrate and support. However, the selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.,* 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07. '864 teaches the suitability of the provision of a heat conduction member between a substrate and an electrostatic chuck (col. 2, lines 19-34 and 58-67) in order to control the temperature of a substrate during processing of the substrate. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used such a system with a reasonable expectation of success because '864 teaches that the system is operative to control the temperature of substrates during processing.

Claim 40 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-29 of U.S. Patent No. 6,846,213 in view of Ikeda '061 for the reasons given above and further in view of Dvorsky '864 for substantially the same reasons discussed above.

Claims 44 and 45 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-29 of U.S. Patent No. 6,846,213 in view of Ikeda '061. '213 is described above, but does not explicitly describe 1) that X- and Y-wiring lines connect a plurality of conductive films, 2)

two setting and applying steps, or 3) applying a voltage to the wiring lines in an atmosphere containing hydrogen gas and a carbon compound gas. However, such features are known in the art for producing electron-emitting devices, as described in regard to '061 above. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated those features into the claims of '213 with a reasonable expectation of success to have achieved the conventional layouts and purposes described by '061.

4. Claim 12 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913542. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process of '542, claim 1, part a, dominates current claim 1.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 13-14, 19-25, 30-36, and 41-43 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913542 in view of Ikeda '061 because '061 teaches that the features of claims 13-14, 19-25, 30-36, and 41-43 are conventional in the art of manufacturing electron-emitting devices, as discussed at length above.

This is a provisional obviousness-type double patenting rejection.

Claims 44 and 45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending

Application No. 10/913542 in view of Ikeda '061 because '061 teaches that the features of claims 44 and 45 are conventional in the art of manufacturing electron-emitting devices, as discussed at length above.

This is a provisional obviousness-type double patenting rejection.

Claims 15 and 17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913542 in view of Dvorsky '864 because '864 teaches that the conventional features of holding substrates, as discussed at length above.

This is a provisional obviousness-type double patenting rejection.

Claims 18, 26, 28-29, 37, and 39-40 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913542 in view of Ikeda '061, as applied to claims 22 and 33 above and further in view of Dvorsky '864 because '864 teaches that the conventional features of holding and heating substrates, as discussed at length above.

This is a provisional obviousness-type double patenting rejection.

Claims 15-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913542 in view of Okunuki '552. '542 does not explicitly teach fixing the substrate to the support via vacuum chucking. However, the selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07. '552 teaches the suitability of vacuum

chucking to hold substrates for processing to produce electron-emitting devices (col. 14, lines 12-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used such a vacuum chuck as the particular means of support of the substrate with a reasonable expectation of success because '552 teaches that vacuum chucks are useful supports for holding substrates during processing.

This is a provisional obviousness-type double patenting rejection.

Claims 26-27 and 37-38 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913542 in view of Ikeda '061, as applied to claims 22 and 33 above and further in view of Okunuki '552 because '552 teaches that the conventional features of holding substrates, as discussed at length above.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

5. Applicant's arguments filed 03/09/2006 have been fully considered but they are not persuasive.

Applicant's arguments regarding the new limitations are not convincing in view of Ikeda '061, which teaches applying a voltage to the wiring lines in an atmosphere containing hydrogen gas and carbon compound gas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is 571-272-8902.

The examiner can normally be reached on Monday thru Thursday 8 - 5:30 and Friday 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

05/16/2006

TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER